ST-S110

SERVICE MANUAL

Canadian Model
AEP Model
UK Model
E Model

SPECIFICATIONS

Tuner

Circuit system: FM stereo, FM/AM superheterodyne tuner
Quartz-locked PLL digital synthesizer system

FM tuner

Frequency range: 87.5–108 MHz
Antenna terminals: 75 ohms unbalanced
300 ohms balanced
AEP, UK models: 75 ohms unbalanced
Intermediate frequency: 10.7 MHz
Sensitivity (at 46 dB quieting)
18.0 dBf, 4.4 μV (mono)
40.0 dBf, 49 μV (stereo)
AEP, UK models:
18.0 dBf, 2.2 μV (mono)
40.0 dBf, 24.5 μV (stereo)
Signal-to-noise ratio (at 40 kHz deviation)
74 dB (mono)
69 dB (stereo)
Harmonic distortion
0.3% (mono), 0.5% (stereo) (at 1 kHz)
Separation: 40 dB (at 1 kHz)
Frequency response
30 Hz–15 kHz $^{+0.5}_{-2.0}$ dB
AEP, UK models:
40 Hz–12.5 kHz ±0.5 dB
Selectivity: West Geman and Italian models:
65 dB (at 300 kHz)
E model:
65 dB (at 400 kHz)
Capture ratio: 1.0 dB
AM suppression ratio
65 dB
Image response ratio
70 dB
IF response ratio: 70 dB
Spurious response ratio
80 dB
Muting threshold: 30 dBf
Automatic tuning threshold
30 dBf
775 mV, 4.7 k ohms (at 75 kHz deviation)
Output: AEP, UK models: 410 mV, 4.7 k ohms (at 40 kHz deviation)

AM tuner

Frequency range: Italian model:
MW: 522–1,611 kHz
LW: 144–288 kHz
AEP, UK models:
MW: 531–1,602 kHz
LW: 153–281 kHz
Canadian model:
AM: 530–1,710 kHz at 10 kHz step
(531–1,710 kHz at 9 kHz step)
E model:
AM: 531–1,602 kHz at 9 kHz step
(530–1,710 kHz at 10 kHz step)
Antenna: AM loop antenna
External antenna terminal
Intermediate frequency
450 kHz
Usable sensitivity (with AM loop antenna)
300 μV/m (999 kHz)
1 mV/m (216 kHz)
Signal-to-noise ratio
54 dB (50 mV/m) (999 kHz)
50 dB (50 mV/m) (216 kHz)
Harmonic distorton
0.5% (50 mV/m, 400 Hz)
Selectivity: 32 dB

— Continued on next page —

MICROFILM

FM STEREO/FM-AM TUNER

SONY®

MC-Service

General

Power requirements
- U.K. model: 240 V AC (or 220 V AC adjustable by authorized Sony personnel), 50/60 Hz
- AEP model: 220 V AC (or 240 V AC adjustable by authorized Sony personnel), 50/60 Hz
- Canadian model: 120 V AC, 60 Hz
- E model: 110–120 V or 220–240 V AC adjustable, 50/60 Hz

Power consumption: 10 W

Dimensions: Approx. 430 × 80 × 295 mm (w/h/d) (17 × 3 1/4 × 11 5/8 inches)

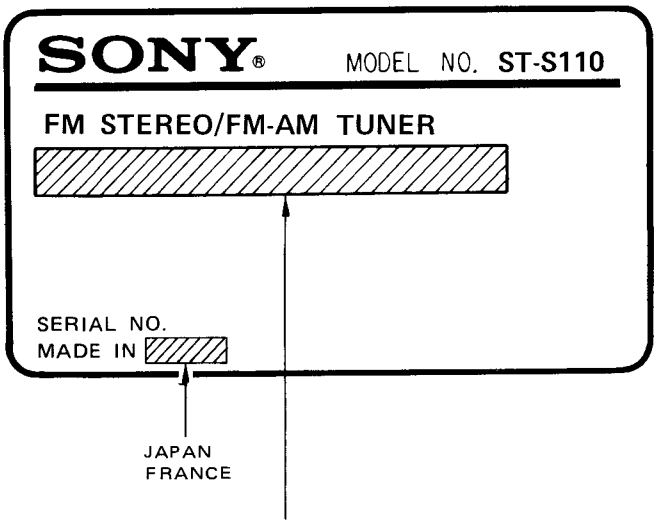
Weight: Approx. 2.8 kg (6 lb 3 oz)

Accessories supplied
- Remote control cord (1)
- Connecting cord (1)
- FM antenna (1) (Except West Germany model)
- AM loop antenna

Design and specifications subject to change without notice.

MODEL IDENTIFICATION

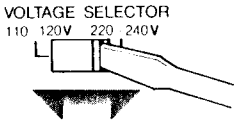
– Specification Label –



Canadian Model: AC: 120 V 60 Hz 10 W
AEP Model: AC: 220 V 50/60 Hz 10 W
UK Model: AC: 240 V 50/60 Hz 10 W
E Model: AC: 110–120 V/220–240 V 50/60 Hz 10 W

On safety

- Before connecting the unit to the power source, check that the operating voltage of your unit is the same as the local power line voltage.

Where purchased	Operating voltage
Canadian Model	120 V AC, 60 Hz
UK Model	240 V AC, 50/60 Hz
AEP Model	220 V AC, 50/60 Hz (240 V AC, adjustable by authorized Sony personnel)
E Model	110–120 or 220–240 V AC, 50/60 Hz (Adjustable using the voltage selector at the rear) 

- Should any solid object or liquid fall into the unit, unplug the unit and have it checked by qualified personnel before operating it an further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Do not pull the cord itself.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
GENERAL

Radiorrecepción

Sintonía automática

Antes de la recepcion, asegúrese de conectar las antenas de AM y FM suministradas.

Sintonía automática

Prima di usare la radio, assicuratevi di collegare le antenne AM e FM.

Receiving Broadcasts

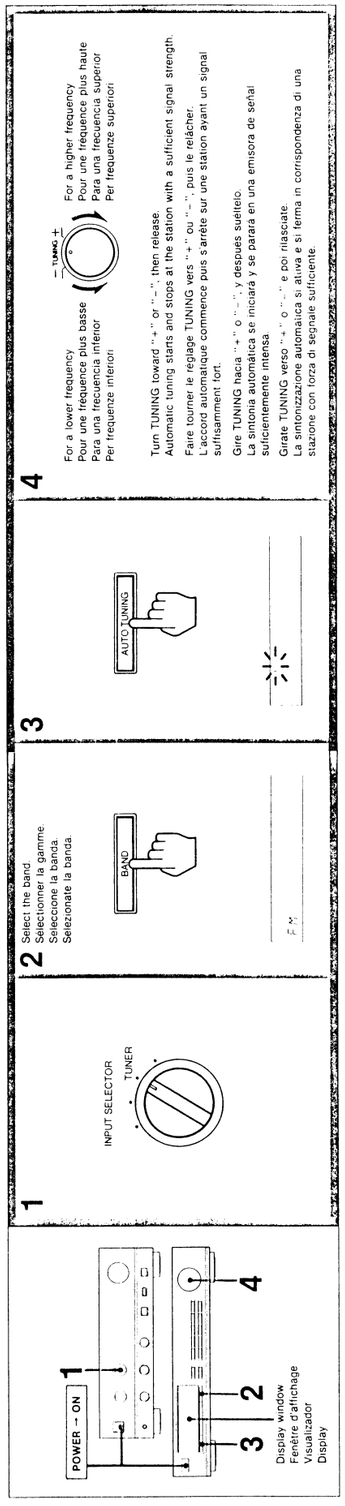
Tuning in Automatically

Before reception, be sure to connect the AM and FM antenna.

Accord automatique

Avant la réception, s'assurer de connecter l'antenne AM et l'antenne FM.

Réception d'une émission



Para recibir otras emisoras
Cuando la emisora recibida no es la deseada, vuelva a girar TUNING

Indicaciones en el visualizador
- Cuando reciba un programa de FM estereo de señal suficientemente intensa, aparecerá la indicacion STEREO.
- En el indicador SIGNAL aparecerá la intensidad de señal de la emisora recibida.

Para cambiar el intervalo de sintonía de AM (excepto los modelos para Europa continental y el Reino Unido)
El intervalo de sintonía de AM ha sido ajustado en fábrica a 10 kHz o 9 kHz para ajustarse al sistema de asignacion de frecuencias de su país. Para cambiar el intervalo, realice lo siguiente.
1 Presione el interruptor POWER a fin de conectar la alimentación del sistema.
2 Presione el selector BAND para seleccionar AM.
3 Presione el interruptor POWER para desconectar la alimentación del sistema.
4 Mientras el mando TUNING esté completamente girado hacia "+", presione el interruptor POWER a fin de conectar la alimentación del sistema.
Para resustar el intervalo, realice los mismos procedimientos.

Nota
Cuando cambie el intervalo, se borrarán todas las emisoras almacenadas.
Después de cambiar el intervalo, vuelva a almacenar las emisoras.

To receive other stations
When the received station is not the one you want, turn TUNING again.

Indications in the display window
- The STEREO indication appears when an FM stereo program of sufficient signal strength is received.
- The SIGNAL meter indicates the signal strength of a station tuned in.

To change the AM tuning interval (except European and U.K. models)
The AM tuning interval is preset at the factory to 10 kHz or to 9 kHz to match the frequency allocation system of your country. To change the interval, proceed as follows.
1 Depress the POWER switch to turn on the system.
2 Press the BAND selector to select AM.
3 Press the POWER switch to turn off the system.
4 While turning the TUNING knob fully toward "+", press the POWER switch to turn on the system stored.
To reset the interval, follow the same procedure.

Note
When the interval is changed, all stored stations will be erased.
After changing the interval, be sure to store the stations again.

Pour recevoir d'autres stations
Lorsque la station accordée n'est pas celle désirée, ajuster de nouveau TUNING.

Indications sur le visuel
- L'indication STEREO apparaît lorsqu'un programme stéréo avec un signal suffisamment fort est reçu.
- L'intensité du signal de la station accordée est indiquée par l'indicateur SIGNAL.

Changement de l'intervalle d'accord AM (excepté les modèles pour l'Europe continentale et le Royaume-Uni)
L'intervalle d'accord AM a été préregléen usine sur 10 ou 9 kHz pour coincider avec l'allocation des fréquences dans la région d'utilisation. Pour modifier l'intervalle, procéder comme suit.
1 Appuyer sur le commutateur POWER pour mettre le système sous tension.
2 Appuyer sur le sélecteur FM/AM BAND pour sélectionner AM.
3 Appuyer de nouveau sur le commutateur POWER pour mettre le système hors tension.
4 Tout en tournant le bouton TUNING vers "+", appuyer sur le commutateur POWER pour refourmir l'alimentation.
Pour réinitialiser l'intervalle, répéter les mêmes démarches.

Remarque
Lorsque l'intervalle est modifié, toutes les stations mémorisées sont effacées.
Après avoir changé l'intervalle, s'assurer de remémoriser les stations.

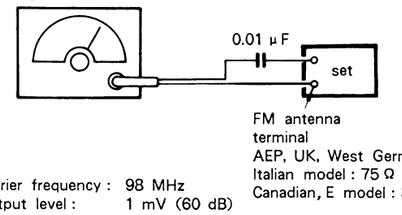
SECTION 2
ELECTRICAL ADJUSTMENTS

2-1. FM SECTION

FM NULL Adjustment

Setting :
BAND switch : FM

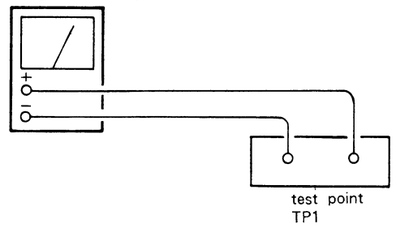
Procedure :



Carrier frequency : 98 MHz
Output level : 1 mV (60 dB)
Modulation : 1 kHz, 40 kHz deviation (100%) (AEP, UK, West Germany, Italian model)
1 kHz, 75 kHz deviation (100%) (Canadian, E model)

1. Tune the set to 98 MHz.
2. Adjust T21 for a 0 V reading on the VOM.

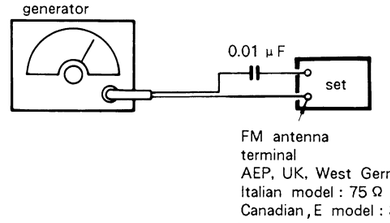
Note : When the ceramic filter is replaced, these adjustments should be made.



STEREO Indication Lighting Level Adjustment

Setting :
STEREO/MUTE switch : OFF
BAND switch : FM

Procedure :



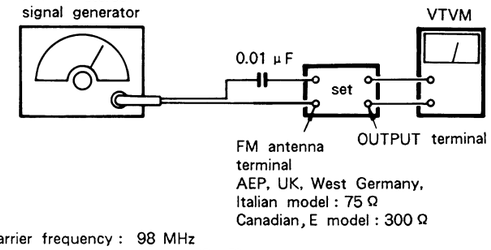
Carrier frequency : 98 MHz
Output level : 17.9 µV (25 dB)
Mode : Stereo
Modulation :
Audio (1 kHz) : 33.75 kHz deviation (45%)
Pilot (19 kHz) : 7.5 kHz deviation (10%)
Sub-channel (38 kHz) : 33.75 kHz deviation (45%)
} Canadian, E model
Audio (1 kHz) : 16.25 kHz deviation (40.625%)
Pilot (19 kHz) : 7.5 kHz deviation (18.75%)
Sub-channel (38 kHz) : 16.25 kHz deviation (40.625%)
} AEP, UK West Germany, Italian model

1. Tune the set to 98 MHz.
2. Adjust RV24 so that the STEREO indicator goes on.

FM Stereo Separation Adjustment

Setting :
STEREO/MUTE switch : ON (STEREO)
BAND switch : FM

Procedure :



Carrier frequency : 98 MHz
Output level : 1 mV (60 dB)
Mode : Stereo
Modulation :
Audio (1 kHz) : 33.75 kHz deviation (45%)
Pilot (19 kHz) : 7.5 kHz deviation (10%)
Sub-channel (38 kHz) : 33.75 kHz deviation (45%)
} Canadian, E model
Audio (1 kHz) : 16.25 kHz deviation (40.625%)
Pilot (19 kHz) : 7.5 kHz deviation (18.75%)
Sub-channel (38 kHz) : 16.25 kHz deviation (40.625%)
} AEP, UK West Germany, Italian model

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	(B) Adjust RV21 for minimum reading.
R-CH	R-CH	(C)
L-CH	R-CH	(D) Adjust RV21 for minimum reading.

L-CH Stereo separation : (A) − (B)
R-CH Stereo separation : (C) − (D)

The separations of both channels should be equal.

MC-Service

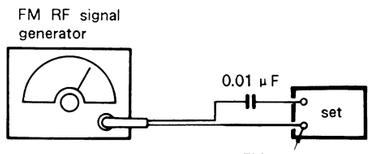
SECTION 2
ELECTRICAL ADJUSTMENTS

2-1. FM SECTION

FM NULL Adjustment

Setting :
BAND switch : FM

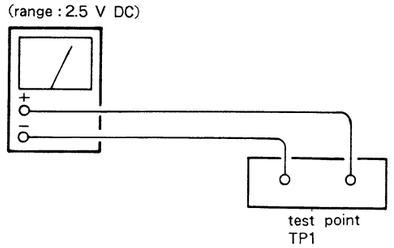
Procedure :



Carrier frequency : 98 MHz
Output level : 1 mV (60 dB)
Modulation : 1 kHz, 40 kHz deviation (100%)
(AEP, UK, West Germany, Italian model)
1 kHz, 75 kHz deviation (100%)
(Canadian, E model)

1. Tune the set to 98 MHz.
2. Adjust T21 for a 0 V reading on the VOM.

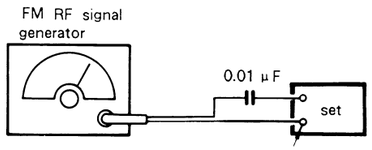
Note : When the ceramic filter is replaced, these adjustments should be made.



STEREO Indication Lighting Level Adjustment

Setting :
STEREO/MUTE switch : OFF
BAND switch : FM

Procedure :



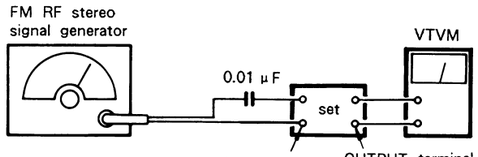
Carrier frequency : 98 MHz
Output level : 17.9 µV (25 dB)
Mode : Stereo
Modulation :
Audio (1 kHz) : 33.75 kHz deviation (45%)
Pilot (19 kHz) : 7.5 kHz deviation (10%)
Sub-channel (38 kHz) : 33.75 kHz deviation (45%)
} Canadian, E model
Audio (1 kHz) : 16.25 kHz deviation (40.625%)
Pilot (19 kHz) : 7.5 kHz deviation (18.75%)
Sub-channel (38 kHz) : 16.25 kHz deviation (40.625%)
} AEP, UK West Germany, Italian model

1. Tune the set to 98 MHz.
2. Adjust RV24 so that the STEREO indicator goes on.

FM Stereo Separation Adjustment

Setting :
STEREO/MUTE switch : ON (STEREO)
BAND switch : FM

Procedure :



Carrier frequency : 98 MHz
Output level : 1 mV (60 dB)
Mode : Stereo
Modulation :
Audio (1 kHz) : 33.75 kHz deviation (45%)
Pilot (19 kHz) : 7.5 kHz deviation (10%)
Sub-channel (38 kHz) : 33.75 kHz deviation (45%)
} Canadian, E model
Audio (1 kHz) : 16.25 kHz deviation (40.625%)
Pilot (19 kHz) : 7.5 kHz deviation (18.75%)
Sub-channel (38 kHz) : 16.25 kHz deviation (40.625%)
} AEP, UK West Germany, Italian model

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	(B) Adjust RV21 for minimum reading.
R-CH	R-CH	(C)
L-CH	R-CH	(D) Adjust RV21 for minimum reading.

L-CH Stereo separation : (A) − (B)
R-CH Stereo separation : (C) − (D)

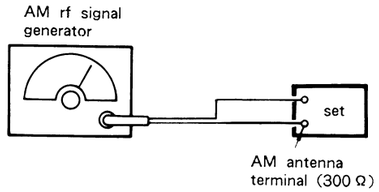
The separations of both channels should be equal.

2-2. AM SECTION

SIGNAL LEVEL METER Lighting Level Adjustment

Setting :
BAND switch : AM (Canadian, E model)
LW (AEP, UK, West Germany, Italian model)

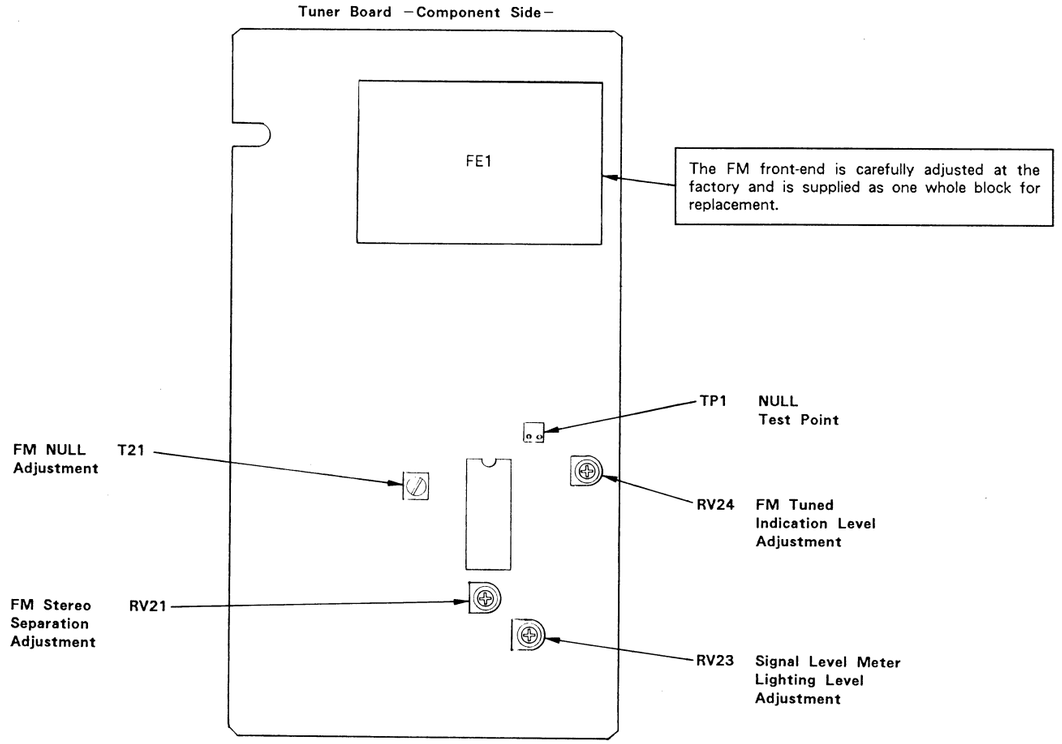
Procedure :



Carrier frequency : 999 kHz (Canadian, E model)
216 kHz
(AEP, UK, West Germany, Italian model)
Output level : 94 dB µ/m
Modulation : 400 Hz, 30% modulation

1. Tune the set to 999 kHz (Canadian, E model) or 216 kHz (AEP, UK, West Germany, Italian model).
2. Adjust RV23 until the scale-5 on SIGNAL METER indicator lights up.

2-3. ADJUSTING PARTS LOCATION


Tuner Board −Component Side−
FE1
The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.
TP1 NULL Test Point
FM NULL Adjustment T21
RV24 FM Tuned Indication Level Adjustment
FM Stereo Separation Adjustment RV21
RV23 Signal Level Meter Lighting Level Adjustment

MC-Service

Associatevi di memorizzare di nuovo le stazioni dopo aver cambiato l'intervallo.
Cuando cambie el intervalo, se borrarán todas las emisoras almacenadas.
Después de cambiar el intervalo, vuelva a almacenar las emisoras.
mémorisées sont effacées.
Après avoir changé l'intervalle, s'assurer de rememoriser les stations.

SECTION 3
DIAGRAMS

3-1. PRINTED WIRING BOARDS

Note :

- ○——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.

● Semiconductor Lead Layouts

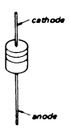
DTC114ES
2SA1348
2SC2669
2SC3113A

2SA1175HFE
2SC2785HFE

2SK246GR3

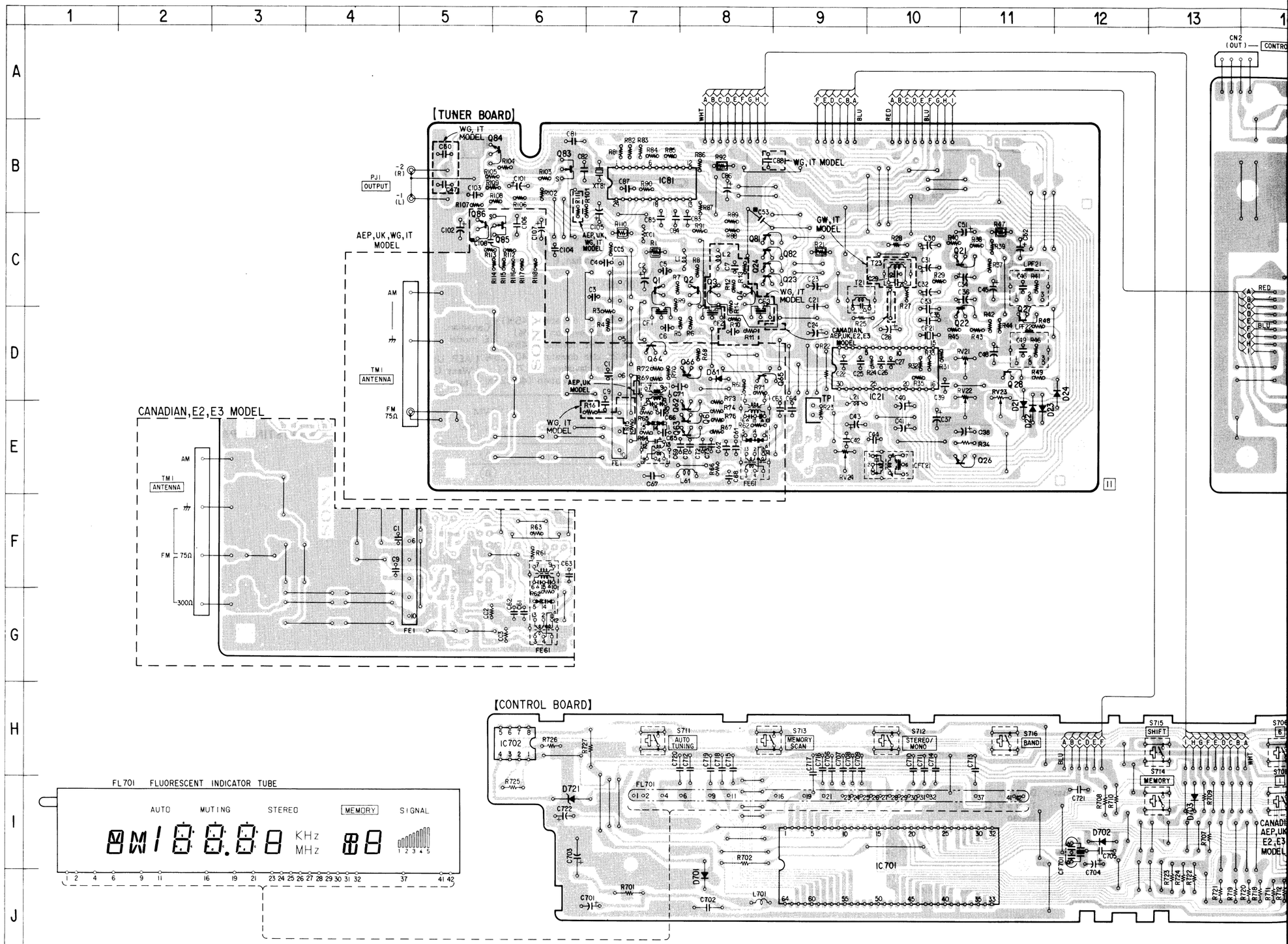
EQA02-17A
EQA02-30B
US1060M
10E2N

RD5.6ES-B2
1SS120



● Semiconductor Location

Ref. No.	Location
D21	E-10
D22	E-10
D23	E-10
D24	D-12
D61	D-8 (AEP, UK, WG, IT)
D501	C-17
D502	C-17
D503	D-16
D504	D-16
D505	E-15
D506	D-15
D507	B-14
D701	J-8
D702	I-12
D703	I-13
D704	I-17 (AEP, UK, WG, IT)
D706	I-17 (IT)
D707	I-17 (E2, E3)
D708	I-16
D709	I-16
D710	I-16
D711	I-16
D712	H-15
D713	I-15
D714	J-17
D715	J-18
D716	J-18
D717	I-17
D718	I-17
D719	I-17
D720	I-18
D721	I-6
IC21	D-10
IC81	B-7
IC501	C-16
IC701	I-10
IC702	H-6
Q1	C-7
Q2	C-8
Q3	C-8 (WG, IT)
Q4	C-8 (WG, IT)
Q21	C-11
Q22	D-11
Q23	C-8
Q24	C-8
Q26	E-11
Q27	D-11
Q28	D-11
Q61	E-8 (AEP, UK, WG, IT)
Q62	E-8 (AEP, UK, WG, IT)
Q63	E-8 (AEP, UK, WG, IT)
Q64	D-7
Q65	D-8 (AEP, UK, WG, IT)
Q66	D-8 (AEP, UK, WG, IT)
Q81	C-8
Q82	C-8
Q83	B-6
Q84	B-6
Q85	C-6 (AEP, UK, WG, IT)
Q86	C-5 (AEP, UK, WG, IT)



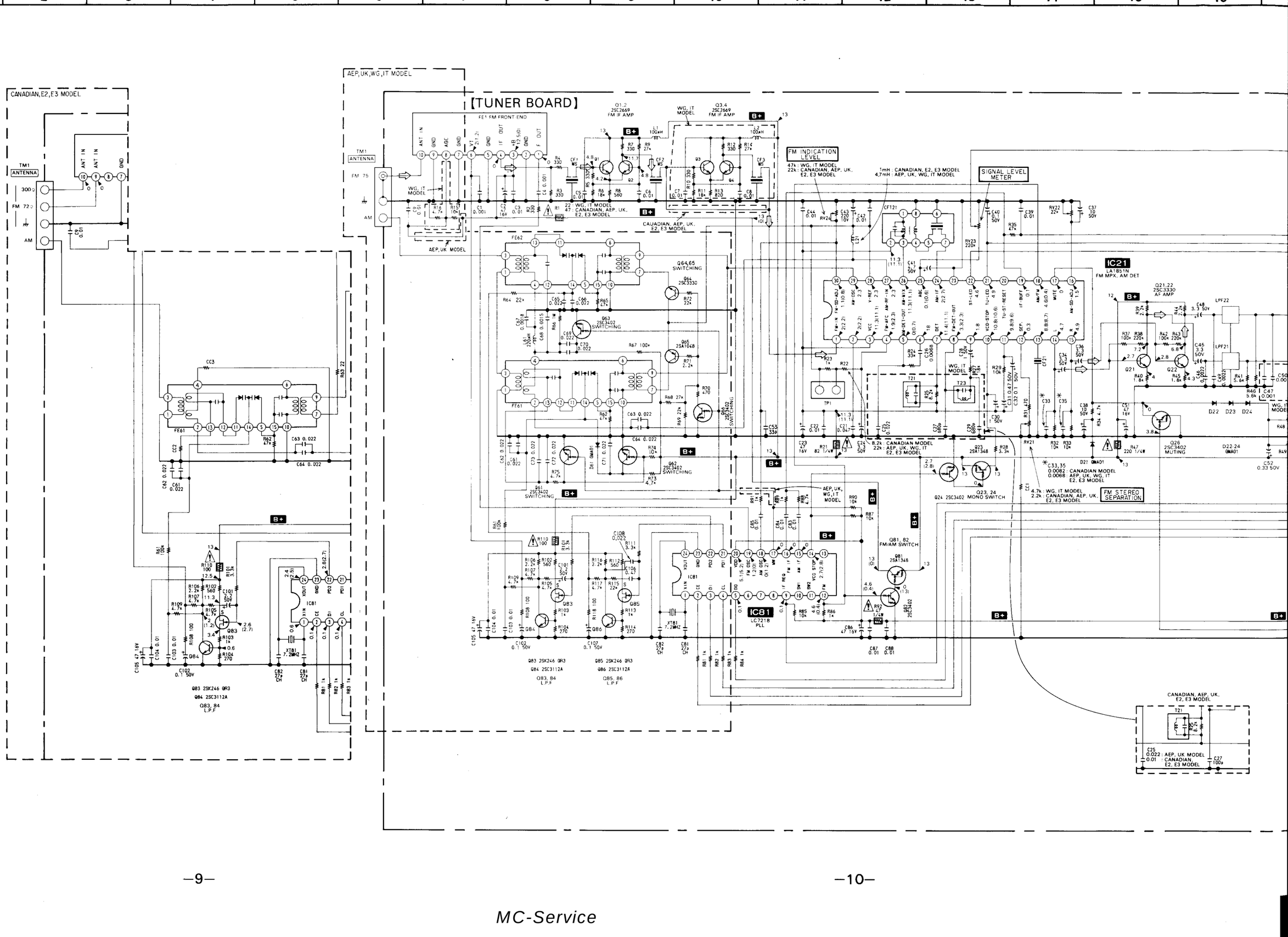
【TUNER BOARD】

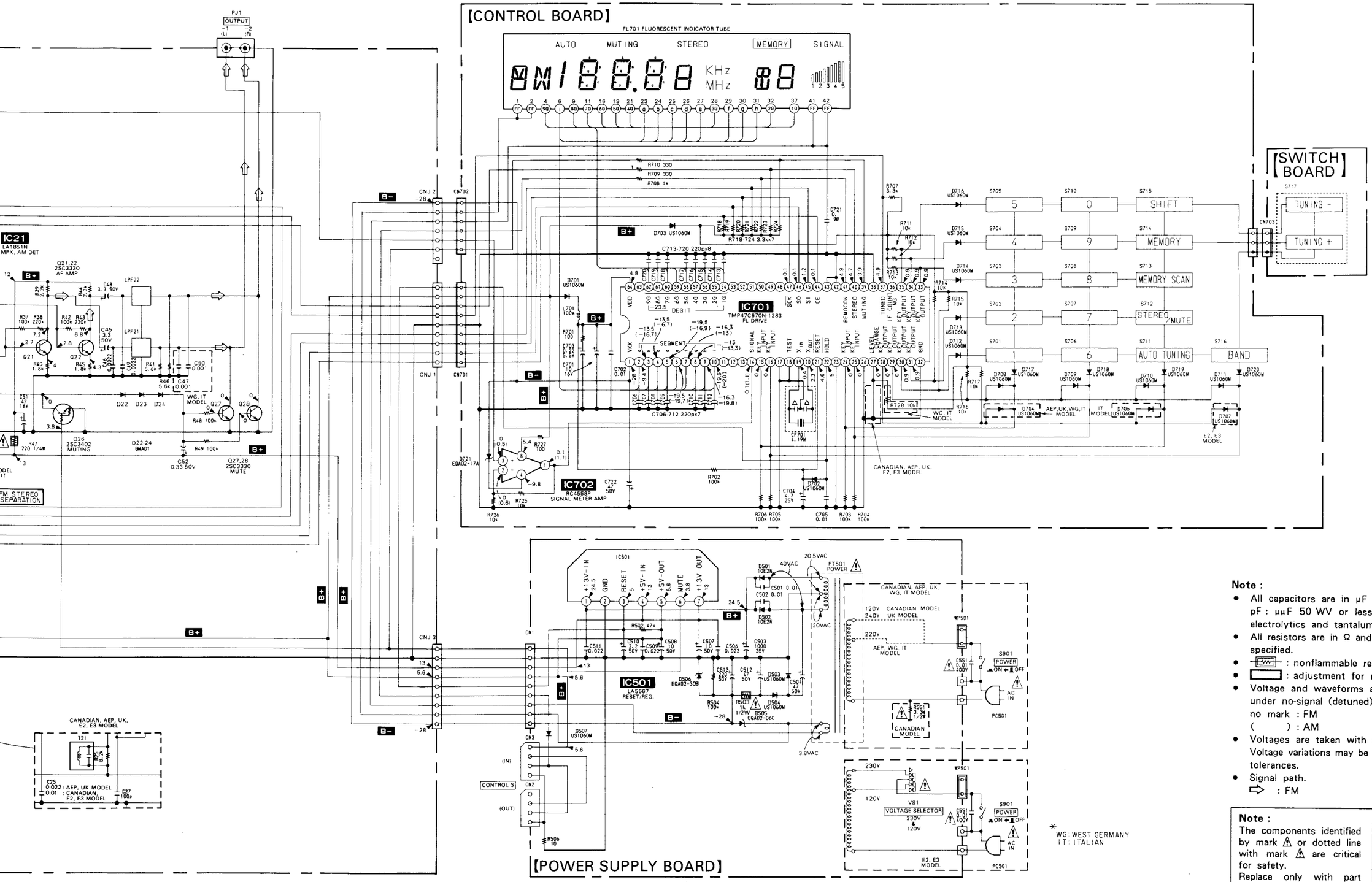
【POWER SUPPLY BOARD】

【CONTROL BOARD】

【SWITCH BOARD】

WG: WEST GERMANY
IT: ITALIAN


CANADIAN, E2, E3 MODEL
AEP, UK, WG, IT MODEL
[TUNER BOARD]
TM1
ANTENNA
300Ω
FM 75Ω
AM
ANT IN
GND
FE1 FM FRONT END
WG, IT MODEL
AEP, UK MODEL
CANADIAN, AEP, UK, E2, E3 MODEL
Q1,2 2SC2669 FM IF AMP
Q3,4 2SC2669 FM IF AMP
L1 100nH
L2 100nH
FM INDICATION LEVEL
47k : WG, IT MODEL
22k : CANADIAN, AEP, UK, E2, E3 MODEL
1mH : CANADIAN, E2, E3 MODEL
4.7mH : AEP, UK, WG, IT MODEL
SIGNAL LEVEL METER
IC21
LA1851N
FM MPX, AM DET
Q21,22 2SC3330 AF AMP
LPF22
LPF21
FE62
FE61
Q64,65 SWITCHING
Q64 2SC3330
Q63 2SE3402 SWITCHING
Q65 2SA1048
Q66 2SE3402 SWITCHING
Q62 2SC3402 SWITCHING
Q61 2SC3402 SWITCHING
TP1
T21
T23
8.2k : CANADIAN MODEL
22k : AEP, UK, WG, IT E2, E3 MODEL
Q23 2SA1348
Q28 3.3k
D21 GMA01
RV21
RV22 22k
RV23 220k
C33,35 0.0082 : CANADIAN MODEL 0.0068 : AEP, UK, WG, IT E2, E3 MODEL
4.7k : WG, IT MODEL 2.2k : CANADIAN, AEP, UK, E2, E3 MODEL
FM STEREO SEPARATION
Q26 2SC3402 MUTING
D22,24 GMA01
D22 D23 D24
Q24 2SC3402 MONO SWITCH
Q23, 24 MONO SWITCH
Q81, 82 FM/AM SWITCH
Q81 2SA1346
Q82 2SC3402
IC81
LC7218
PLL
XT81 7.2MHz
Q83 2SK246 GR3
Q84 2SC3112A
Q83, 84 L.P.F
Q85 2SK246 GR3
Q86 2SC3112A
Q85, 86 L.P.F
CANADIAN, AEP, UK, E2, E3 MODEL
C25 0.022 : AEP, UK MODEL 0.01 : CANADIAN, E2, E3 MODEL
C27 100p



*WG: WEST GERMANY
IT: ITALIAN

Note :

- All capacitors are in μF unless otherwise noted.
  pF : μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ▭ : nonflammable resistor.
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la securité. Ne les remplacer que par une pièce portant le numéro specifié.

SECTION 4 EXPLODED VIEW

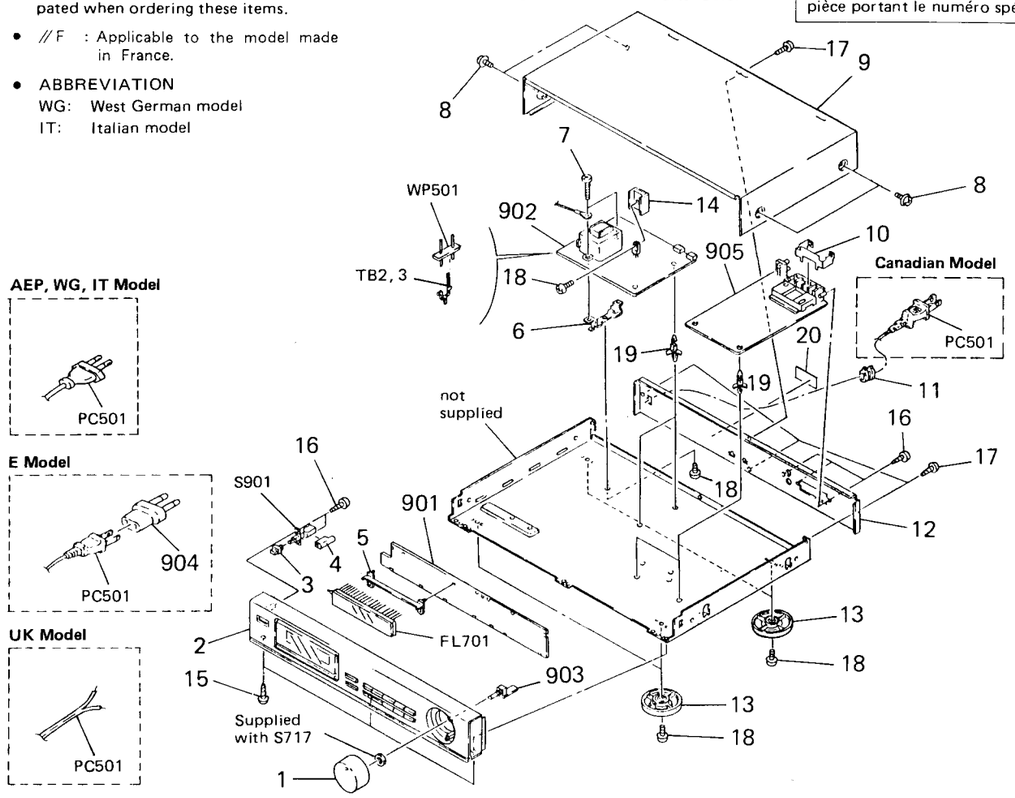
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- //F : Applicable to the model made in France.
- ABBREVIATION
  WG: West German model
  IT: Italian model

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ Cabinet's Color ↑ Parts' Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remarks
1	4-923-458-01	KNOB (TUNING)	
2	X-4886-037-1	PANEL (BASE) ASSY	
3	4-917-460-01	KNOB, POWER	
4	*3-332-563-01	BRACKET (P)	
5	*4-925-125-01	HOLDER, FL TUBE	
6	*4-917-044-01	BRACKET (PT)	
7	7-682-550-04	SCREW +BVTT 3X12 (S)	
8	3-704-366-01	SCREW (CASE) (M3X8)	
9	4-923-457-01	CASE	
10	*4-924-988-11	PLATE (ST), GROUND	
11	*3-703-244-00	(AEP,UK,WG,IT)...BUSHING (2104), CORD	
	*3-703-571-00	(Canadian,E)...BUSHING (S)(4516), CORD	
12	*4-923-452-01	(WG).....PANEL, BACK	
	*4-923-452-11	(AEP).....PANEL, BACK	
	*4-923-452-21	(AEP//F).....PANEL, BACK	
	*4-923-452-31	(UK).....PANEL, BACK	
	*4-923-452-41	(IT).....PANEL, BACK	
	*4-923-452-71	(Canadian)....PANEL, BACK	
	*4-923-452-81	(E).....PANEL, BACK	
	*4-923-453-51	(AEP,IT//F)...PANEL, BACK	
13	X-4885-935-1	(AEP,UK,E,WG,IT)...FOOT ASSY	
14	*4-363-146-31	HEAT SINK, V.OUT	
15	3-703-685-21	SCREW (+BV 3X8)	
16	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
17	7-685-872-09	SCREW +BVTT 3X8 (S)	
18	7-682-548-04	SCREW +BVTT 3X8 (S)	
19	*3-346-265-11	HOLDER, PC BOARD	
20	*4-923-455-01	(AEP,IT//F)...LABEL, MODEL NUMBER	

No.	Part No.	Description	Remarks
901	*A-4333-525-A	(E).....MOUNTED PCB, CONTROL	
	*A-4333-527-A	(IT).....MOUNTED PCB, CONTROL	
	*A-4333-528-A	(Canadian)...MOUNTED PCB, CONTROL	
	*A-4333-530-A	(AEP,UK).....MOUNTED PCB, CONTROL	
	*A-4333-740-A	(WG).....MOUNTED PCB, CONTROL	
902	*1-630-710-11	PC BOARD, POWER	
903	*1-630-711-11	PC BOARD, SWITCH	
904	⚠1-526-565-12	(E)...AC PLUG ADAPTOR	
905	*A-4303-216-A	(Canadian)...MOUNTED PCB, TUNER	
	*A-4303-217-A	(E).....MOUNTED PCB, TUNER	
	*A-4303-218-A	(WG,IT).....MOUNTED PCB, TUNER	
	*A-4303-226-A	(AEP,UK).....MOUNTED PCB, TUNER	
FL701	1-519-513-11	INDICATOR TUBE, FLUORESCENT	
PC501	⚠1-551-188-XX	(E).....CORD, POWER	
PC501	⚠1-555-750-00	(AEP,WG,IT)...CORD, POWER	
PC501	⚠1-558-945-11	(Canadian)....CORD, POWER (POLAR,SPT-1)	
PC501	⚠1-558-946-11	(UK)..... .....CORD, POWER	
PC501	⚠1-574-127-11	(AEP,IT//F)...CORD, POWER	
S901	⚠1-554-920-21	SWITCH, PUSH (AC POWER)(1 KEY)	
TB2	1-535-416-00	TERMINAL	
TB3	1-535-416-00	TERMINAL	
WP501	*1-535-139-00	BASE POST 22MM (10MM PITCH) 2P	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.
- ABBREVIATION
  WG: West German model
  IT: Italian model

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

- //F : Applicable to the model made in France.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
901	*A-4333-525-A	(E).....MOUNTED PCB, CONTROL
	*A-4333-527-A	(IT).....MOUNTED PCB, CONTROL
	*A-4333-528-A	(Canadian)...MOUNTED PCB, CONTROL
	*A-4333-530-A	(AEP,UK).....MOUNTED PCB, CONTROL
	*A-4333-740-A	(WG).....MOUNTED PCB, CONTROL
902	*1-630-710-11	PC BOARD, POWER
903	*1-630-711-11	PC BOARD, SWITCH
904	⚠1-526-565-12	(E)...AC PLUG ADAPTOR
905	*A-4303-216-A	(Canadian)...MOUNTED PCB, TUNER
	*A-4303-217-A	(E).....MOUNTED PCB, TUNER
	*A-4303-218-A	(WG,IT).....MOUNTED PCB, TUNER
	*A-4303-226-A	(AEP,UK).....MOUNTED PCB, TUNER
C1	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C2	1-124-474-11	ELECT 47MF 20% 16V
C3	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C4	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C5	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C6	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C7	1-163-059-00	(WG,IT)...CERAMIC MELF 0.01MF 20% 16V
C8	1-163-059-00	(WG,IT)...CERAMIC MELF 0.01MF 20% 16V
C9	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C21	1-101-006-00	CERAMIC 0.047MF 50V
C22	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C23	1-124-474-11	ELECT 47MF 20% 16V
C24	1-123-382-00	ELECT 3.3MF 20% 50V
C25	1-163-059-00	(Canadian,E) ...CERAMIC MELF 0.01MF 20% 16V
C25	1-163-063-00	(AEP,UK,WG,IT) ...CERAMIC MELF 0.022MF 25V
C26	1-162-527-11	CERAMIC CHIP 0.0068MF 20% 12V
C27	1-162-521-11	(WG,IT)...CERAMIC CHIP 680PF 20% 50V
C28	1-124-499-11	ELECT 1.0MF 20% 50V
C29	1-162-521-11	(WG,IT)...CERAMIC CHIP 680PF 20% 50V
C30	1-124-499-11	ELECT 1.0MF 20% 50V
C31	1-124-902-00	ELECT 0.47MF 20% 50V
C32	1-124-463-00	ELECT 0.1MF 20% 50V
C33	1-130-481-00	(AEP,UK,E,WG,IT) ...PE TEREPHTHALATE 0.0068MF 5% 50V
C35	1-130-482-00	(Canadian) ...PE TEREPHTHALATE 0.0082MF 5% 50V
C34	1-123-382-00	ELECT 3.3MF 20% 50V
C35	1-130-481-00	(AEP,UK,E,WG,IT) ...PE TEREPHTHALATE 0.0068MF 5% 50V
C35	1-130-482-00	(Canadian) ...PE TEREPHTHALATE 0.0082MF 5% 50V
C36	1-123-382-00	ELECT 3.3MF 20% 50V
C37	1-123-875-11	ELECT 10MF 20% 50V
C38	1-123-875-11	ELECT 10MF 20% 50V
C39	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C40	1-124-463-00	ELECT 0.1MF 20% 50V
C41	1-124-927-11	ELECT 4.7MF 20% 16V
C42	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C43	1-126-176-11	ELECT 220MF 20% 10V
C44	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C45	1-123-382-00	ELECT 3.3MF 20% 50V
C46	1-162-524-11	CERAMIC CHIP 0.0022MF 20% 25V
C47	1-162-294-31	(WG,IT)...CERAMIC CHIP 0.001MF 20% 25V
C48	1-123-382-00	ELECT 3.3MF 20% 50V
C49	1-162-524-11	CERAMIC CHIP 0.0022MF 20% 25V
C50	1-162-294-31	(WG,IT)...CERAMIC CHIP 0.001MF 20% 25V
C51	1-124-474-11	ELECT 47MF 20% 16V
C52	1-124-252-00	ELECT 0.33MF 20% 50V
C53	1-162-211-11	CERAMIC 33PF 5% 50V
C61	1-163-063-00	CERAMIC MELF 0.022MF 25V
C62	1-163-063-00	CERAMIC MELF 0.022MF 25V
C63	1-163-063-00	CERAMIC MELF 0.022MF 25V
C64	1-163-063-00	CERAMIC MELF 0.022MF 25V
C65	1-163-063-00	(AEP,UK,WG,IT) ...CERAMIC MELF 0.022MF 25V
C66	1-163-063-00	(AEP,UK,WG,IT) ...CERAMIC MELF 0.022MF 25V
C67	1-102-120-00	(AEP,UK,WG,IT) ...CERAMIC 0.0018MF 10% 50V
C68	1-162-523-11	(AEP,UK,WG,IT) ...CERAMIC CHIP 0.0015MF 20% 25V
C69	1-163-063-00	(AEP,UK,WG,IT) ...CERAMIC MELF 0.022MF 25V
C70	1-163-063-00	(AEP,UK,WG,IT) ...CERAMIC MELF 0.022MF 25V
C71	1-163-063-00	(AEP,UK,WG,IT) ...CERAMIC MELF 0.022MF 25V
C72	1-163-063-00	(AEP,UK,WG,IT) ...CERAMIC MELF 0.022MF 25V
C73	1-163-063-00	(AEP,UK,WG,IT) ...CERAMIC MELF 0.022MF 25V
C81	1-102-961-00	CERAMIC 27PF 5% 50V
C82	1-102-961-00	CERAMIC 27PF 5% 50V
C83	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C84	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C85	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C86	1-124-474-11	ELECT 47MF 20% 16V
C87	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C88	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C101	1-124-925-11	ELECT 2.2MF 20% 50V
C102	1-124-463-00	ELECT 0.1MF 20% 50V
C103	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C104	1-163-059-00	CERAMIC MELF 0.01MF 20% 16V
C105	1-124-927-11	ELECT 4.7MF 20% 16V
C106	1-136-159-11	FILM 0.22MF 5% 50V
C107	1-124-927-11	ELECT 4.7MF 20% 16V
C108	1-101-006-00	CERAMIC 0.047MF 50V
C501	1-101-006-00	CERAMIC 0.047MF 50V
C502	1-101-006-00	CERAMIC 0.047MF 50V
C503	1-126-176-11	ELECT 220MF 20% 10V
C504	1-124-927-11	ELECT 4.7MF 20% 16V
C506	1-101-006-00	CERAMIC 0.047MF 50V
C507	1-123-382-00	ELECT 3.3MF 20% 50V
C508	1-123-382-00	ELECT 3.3MF 20% 50V
C509	1-101-006-00	CERAMIC 0.047MF 50V
C510	1-124-927-11	ELECT 4.7MF 20% 16V
C511	1-101-006-00	CERAMIC 0.047MF 50V
C512	1-124-927-11	ELECT 4.7MF 20% 16V
C513	1-124-927-11	ELECT 4.7MF 20% 16V
C551	1-161-041-00	CERAMIC 0.01MF 5% 50V
C701	1-126-176-11	ELECT 220MF 20% 10V
C702	1-161-041-00	CERAMIC 0.01MF 5% 50V
C703	1-125-827-11	ELECT 100MF 20% 16V
C704	1-126-176-11	ELECT 220MF 20% 10V
C705	1-161-041-00	CERAMIC 0.01MF 5% 50V
C706	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C707	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C708	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C709	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C710	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C711	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C712	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C713	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C714	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C715	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C716	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C717	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C718	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C719	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C720	1-162-294-31	CERAMIC CHIP 0.001MF 20% 25V
C721	1-136-159-11	FILM 0.22MF 5% 50V
C722	1-124-927-11	ELECT 4.7MF 20% 16V
CC1	1-249-414-11	CERAMIC 0.5PF 50V
CC2	1-249-414-11	CERAMIC 0.5PF 50V
CC3	1-249-414-11	CERAMIC 0.5PF 50V
CC5	1-249-414-11	CERAMIC 0.5PF 50V
CF1	1-567-861-11	CERAMIC 0.9MHZ
CF2	1-567-861-11	CERAMIC 0.9MHZ
CF3	1-567-861-11	CERAMIC 0.9MHZ
CF21	1-577-001-11	CERAMIC 10.7MHZ
CF701	1-577-001-11	CERAMIC 10.7MHZ
CFT21	1-404-001-11	FILTER, CERAMIC 10.7MHZ
CN1	*1-568-000-11	PIN, CONNECTOR (PC BOARD) 2P
CN2	1-564-001-11	PIN, CONNECTOR (PC BOARD) 3P
CN3	1-564-001-11	PIN, CONNECTOR (PC BOARD) 3P
CN702	*1-568-000-11	PIN, CONNECTOR (PC BOARD) 2P
CN703	*1-564-001-11	PIN, CONNECTOR (PC BOARD) 3P

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			20%	16V	
			20%	50V	
			20%	16V	
			20%	16V	
			20%	10V	
			20%	16V	
			20%	50V	
			20%	25V	
		0.001MF	20%	25V	
			20%	50V	
			20%	25V	
		0.001MF	20%	25V	
			20%	16V	
			20%	50V	
			5%	50V	
				25V	
				25V	
				25V	
				25V	
MF				25V	
				25V	
MF				25V	
8MF			10%	50V	
				25V	
5MF			20%	25V	
MF				25V	
				25V	
MF				25V	
				25V	
MF				25V	
				25V	
			5%	50V	
			5%	50V	
			20%	16V	
			20%	16V	
			20%	16V	
			20%	16V	
			20%	16V	
			20%	50V	
			20%	50V	
			20%	16V	
			20%	16V	

Ref.No.	Part No.	Description			
C105	1-124-474-11	ELECT	47MF	20%	50V
C106	1-136-173-00	(AEP,UK,WG,IT)...			
		METALIZED FILM	0.47MF	5%	50V
C107	1-124-463-00	(AEP,UK,WG,IT)...ELECT	0.1MF	20%	50V
C108	1-101-005-00	CERAMIC	0.022MF		50V
C501	1-101-004-00	CERAMIC	0.01MF		50V
C502	1-101-004-00	CERAMIC	0.01MF		50V
C503	1-126-105-11	ELECT	1000MF	20%	35V
C504	1-124-910-11	ELECT	47MF	20%	50V
C506	1-101-005-00	CERAMIC	0.022MF		50V
C507	1-123-875-11	ELECT	10MF	20%	50V
C508	1-123-875-11	ELECT	10MF	20%	50V
C509	1-101-005-00	CERAMIC	0.022MF		50V
C510	1-124-925-11	ELECT	2.2MF	20%	50V
C511	1-101-005-00	CERAMIC	0.022MF		50V
C512	1-124-910-11	ELECT	47MF	20%	50V
C513	1-124-911-11	ELECT	220MF	20%	50V
C551	1-161-744-00	CERAMIC	0.01MF		400V
C701	1-126-157-11	ELECT	10MF	20%	16V
C702	1-161-379-00	CERAMIC	0.01MF	30%	16V
C703	1-125-486-11	DOUBLELAYERS	0.22F		5.5V
C704	1-126-094-11	ELECT	4.7MF	20%	25V
C705	1-161-379-00	CERAMIC	0.01MF	30%	16V
C706	1-162-286-31	CERAMIC	220PF	10%	50V
C707	1-162-286-31	CERAMIC	220PF	10%	50V
C708	1-162-286-31	CERAMIC	220PF	10%	50V
C709	1-162-286-31	CERAMIC	220PF	10%	50V
C710	1-162-286-31	CERAMIC	220PF	10%	50V
C711	1-162-286-31	CERAMIC	220PF	10%	50V
C712	1-162-286-31	CERAMIC	220PF	10%	50V
C713	1-162-286-31	CERAMIC	220PF	10%	50V
C714	1-162-286-31	CERAMIC	220PF	10%	50V
C715	1-162-286-31	CERAMIC	220PF	10%	50V
C716	1-162-286-31	CERAMIC	220PF	10%	50V
C717	1-162-286-31	CERAMIC	220PF	10%	50V
C718	1-162-286-31	CERAMIC	220PF	10%	50V
C719	1-162-286-31	CERAMIC	220PF	10%	50V
C720	1-162-286-31	CERAMIC	220PF	10%	50V
C721	1-136-165-00	FILM	0.1MF	5%	50V
C722	1-124-910-11	ELECT	47MF	20%	50V
CC1	1-249-366-11	CARBON MELF	0	5%	1/5W
CC2	1-249-366-11	(Canadian,E)			
		...CARBON MELF	0	5%	1/5W
CC3	1-249-366-11	(Canadian,E)			
		...CARBON MELF	0	5%	1/5W
CC5	1-249-997-11	(AEP,UK)...CARBON MELF	0	5%	1/8W
CF1	1-567-389-11	FILTER, CERAMIC			
CF2	1-567-389-11	FILTER, CERAMIC			
CF3	1-567-389-11	(WG,IT)...FILTER, CERAMIC			
CF21	1-577-075-11	OSCILLATOR, CERAMIC			
CF701	1-577-359-21	VIBRATOR, CERAMIC			
CFT21	1-404-853-11	TRANSFORMER,IF(CERAMIC FILTER)			
CN1	*1-568-284-11	SOCKET, CONNECTOR 9P			
CN2	1-564-980-11	PIN, CONNECTOR 4P			
CN3	1-564-980-11	PIN, CONNECTOR 4P			
CN702	*1-568-281-11	SOCKET, CONNECTOR 6P			
CN703	*1-564-337-00	PIN, CONNECTOR 3P			

Ref.No.	Part No.	Description
CNJ1	*1-506-503-11	PIN, CONNECTOR 9P
CNJ2	*1-568-273-11	SOCKET, CONNECTOR 7P
CNJ3	*1-568-275-11	SOCKET, CONNECTOR 9P
D21	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D21	8-719-000-26	DIODE US1060M
D22	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D22	8-719-000-26	DIODE US1060M
D23	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D23	8-719-000-26	DIODE US1060M
D24	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D24	8-719-000-26	DIODE US1060M
D61	8-719-912-20	(AEP,IT//F).....DIODE 1SS120
D61	8-719-000-26	(AEP,UK,WG,IT)...DIODE US1060M
D501	8-719-200-77	DIODE 10E2N
D501	8-719-200-82	(AEP,IT//F)...DIODE 11ES2
D502	8-719-200-77	DIODE 10E2N
D502	8-719-200-82	(AEP,IT//F)...DIODE 11ES2
D503	8-719-000-26	DIODE US1060M
D503	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D504	8-719-000-26	DIODE US1060M
D504	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D505	8-719-109-89	DIODE RD5.6ES-B2
D506	8-719-904-93	DIODE EQA02-30B
D507	8-719-000-26	DIODE US1060M
D507	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D701	8-719-000-26	DIODE US1060M
D701	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D702	8-719-000-26	DIODE US1060M
D702	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D703	8-719-000-26	DIODE US1060M
D703	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D704	8-719-000-26	(AEP,UK,WG,IT)...DIODE US1060M
D704	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D706	8-719-000-26	(IT).....DIODE US1060M
D706	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D707	8-719-000-26	(E)....DIODE US1060M
D708	8-719-000-26	DIODE US1060M
D708	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D709	8-719-000-26	DIODE US1060M
D709	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D710	8-719-000-26	DIODE US1060M
D710	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D711	8-719-000-26	DIODE US1060M
D711	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D712	8-719-000-26	DIODE US1060M
D712	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D713	8-719-000-26	DIODE US1060M
D713	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D714	8-719-000-26	DIODE US1060M
D714	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D715	8-719-000-26	DIODE US1060M
D715	8-719-912-20	(AEP,IT//F)...DIODE 1SS120

Ref.No.	Part No.	Description
D716	8-719-000-26	DIODE US1060M
D716	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D717	8-719-000-26	DIODE US1060M
D717	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D718	8-719-000-26	DIODE US1060M
D718	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D719	8-719-000-27	DIODE US1060M
D719	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D720	8-719-000-27	DIODE US1060M
D720	8-719-912-20	(AEP,IT//F)...DIODE 1SS120
D721	8-719-913-28	DIODE EQA02-17A
FE1	1-463-857-11	(WG,IT).....FRONT END (FM)
FE1	1-463-862-21	(Canadian,AEP,UK,E)...FRONT END, FM
FE61	1-236-462-11	ENCAPSULATED COMPONENT
FE62	1-236-463-11	(AEP,UK,WG,IT)..ENCAPSULATED COMPONENT
FL701	1-519-513-11	INDICATOR TUBE, FLUORESCENT
IC21	8-759-821-45	IC LA1851N
IC81	8-759-820-91	IC LC7218
IC501	8-759-820-09	IC LA5667
IC701	8-759-234-35	IC TMP47C670N-1283
IC702	8-759-945-58	IC RC4558P
L1	1-410-645-31	MICRO INDUCTOR 100UH
L2	1-410-645-31	(WG,IT)...MICRO INDUCTOR 100UH
L21	1-407-500-00	(AEP,UK,WG,IT)...MICRO INDUCTOR 4.7UH
L21	1-410-171-11	(Canadian,E).....MICRO INDUCTOR 1.0MMH
L61	1-410-525-11	(AEP,UK,WG,IT)...MICRO INDUCTOR 220UH
L701	1-410-521-11	INDUCTOR 100UH
LPF21	1-235-164-00	FILTER, LOW PASS
LPF22	1-235-164-00	FILTER, LOW PASS
PT501	1-449-400-11	(AEP,UK,WG,IT)...TRANSFORMER, POWER
PT501	1-449-401-11	(E).....TRANSFORMER, POWER
PT501	1-449-402-11	(Canadian).....TRANSFORMER, POWER
PC501	⚠1-551-188-XX	(E).....CORD, POWER
PC501	⚠1-555-750-00	(AEP,WG,IT)...CORD, POWER
PC501	⚠1-558-945-11	(Canadian)....CORD, POWER (POLAR,SPT-1)
PC501	⚠1-558-946-11	(UK).....CORD, POWER
PC501	⚠1-574-127-11	(AEP,IT//F)...CORD, POWER
PJ1	1-565-352-11	JACK, PIN 2P
Q1	8-729-266-93	TRANSISTOR 2SC2669
Q2	8-729-266-93	TRANSISTOR 2SC2669
Q3	8-729-266-93	(WG,IT)...TRANSISTOR 2SC2669
Q4	8-729-266-93	(WG,IT)...TRANSISTOR 2SC2669
Q21	8-729-119-78	TRANSISTOR 2SC2785HFE
Q22	8-729-119-78	TRANSISTOR 2SC2785HFE
Q23	8-729-806-10	TRANSISTOR 2SA1348
Q24	8-729-900-80	TRANSISTOR DTC114ES
Q26	8-729-900-80	TRANSISTOR DTC114ES
Q27	8-729-119-78	TRANSISTOR 2SC2785HFE
Q28	8-729-119-78	TRANSISTOR 2SC2785HFE
Q61	8-729-900-80	(AEP,UK,WG,IT)...TRANSISTOR DTC114ES
Q62	8-729-900-80	(AEP,UK,WG,IT)...TRANSISTOR DTC114ES
Q63	8-729-900-80	(AEP,UK,WG,IT)...TRANSISTOR DTC114ES
Q64	8-729-119-78	TRANSISTOR 2SC2785HFE

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				
Q65	8-729-820-10	TRANSISTOR 2SA1317				
Q65	8-729-119-76	(AEP,IT//F)...TRANSISTOR 2SA1175HFE				
Q66	8-729-900-80	(AEP,UK,WG,IT)...TRANSISTOR DTC114ES				
Q81	8-729-806-10	TRANSISTOR 2SA1348				
Q82	8-729-900-80	TRANSISTOR DTC114ES				
Q83	8-729-202-67	TRANSISTOR 2SK246GR3				
Q84	8-729-203-53	TRANSISTOR 2SC3113A				
Q85	8-729-202-67	(AEP,UK,WG,IT)...TRANSISTOR 2SK246GR3				
Q86	8-729-203-53	(AEP,UK,WG,IT)...TRANSISTOR 2SC3113A				
R1	⚠1-249-401-11	(Canadian,AEP,UK,E)				
		...CARBON	47	5%	1/4W	F
R1	⚠1-249-397-11	(WG,IT)...CARBON	22	5%	1/4W	F
R3	1-249-329-11	CARBON MELF	330	5%	1/8W	
R4	1-249-329-11	CARBON MELF	330	5%	1/8W	
R5	1-249-329-11	CARBON MELF	330	5%	1/8W	
R6	1-249-350-11	CARBON MELF	18K	5%	1/8W	
R7	1-249-329-11	CARBON MELF	330	5%	1/8W	
R8	1-249-332-11	CARBON MELF	560	5%	1/8W	
R9	1-249-352-11	CARBON MELF	27K	5%	1/8W	
R10	1-249-329-11	(WG,IT)...CARBON MELF	330	5%	1/8W	
R11	1-249-350-11	(WG,IT)...CARBON MELF	18K	5%	1/8W	
R12	1-249-329-11	(WG,IT)...CARBON MELF	330	5%	1/8W	
R13	1-249-334-11	(WG,IT)...CARBON MELF	820	5%	1/8W	
R14	1-249-352-11	(WG,IT)...CARBON MELF	27K	5%	1/8W	
R15	1-249-347-11	(WG,IT)...CARBON MELF	10K	5%	1/8W	
R16	1-249-343-11	(WG,IT)...CARBON MELF	4.7K	5%	1/8W	
R21	⚠1-249-404-00	CARBON (SMALL)	82	5%	1/4W	F
R22	1-249-428-11	(Canadian)...CARBON	8.2K	5%	1/4W	
R22	1-249-433-11	(AEP,UK,E,WG,IT)				
		...CARBON (SMALL)	22K	5%	1/4W	
R23	1-249-335-11	CARBON MELF	1K	5%	1/8W	
R24	1-249-353-11	CARBON MELF	33K	5%	1/8W	
R25	1-249-428-11	CARBON (SMALL)	8.2K	5%	1/4W	
R27	1-249-350-11	CARBON MELF	18K	5%	1/8W	
R28	1-249-423-11	CARBON (SMALL)	3.3K	5%	1/4W	
R29	1-249-347-11	CARBON MELF	10K	5%	1/8W	
R31	1-249-331-11	CARBON MELF	470	5%	1/8W	
R32	1-249-347-11	CARBON MELF	10K	5%	1/8W	
R33	1-249-347-11	CARBON MELF	10K	5%	1/8W	
R34	1-249-425-11	CARBON (SMALL)	4.7K	5%	1/4W	
R35	1-249-355-11	CARBON MELF	47K	5%	1/8W	
R37	1-249-359-11	CARBON MELF	100K	5%	1/8W	
R38	1-249-363-11	CARBON MELF	220K	5%	1/8W	
R39	1-249-339-11	CARBON MELF	2.2K	5%	1/8W	
R40	1-249-338-11	CARBON MELF	1.8K	5%	1/8W	
R41	1-249-344-11	CARBON MELF	5.6K	5%	1/8W	
R42	1-249-359-11	CARBON MELF	100K	5%	1/8W	
R43	1-249-363-11	CARBON MELF	220K	5%	1/8W	
R44	1-249-339-11	CARBON MELF	2.2K	5%	1/8W	
R45	1-249-338-11	CARBON MELF	1.8K	5%	1/8W	
R46	1-249-344-11	CARBON MELF	5.6K	5%	1/8W	
R47	⚠1-249-409-11	CARBON (SMALL)	220	5%	1/4W	F
R48	1-249-359-11	CARBON MELF	100K	5%	1/8W	
R49	1-249-359-11	CARBON MELF	100K	5%	1/8W	
R61	1-249-359-11	CARBON MELF	100K	5%	1/8W	
R62	1-249-355-11	CARBON MELF	47K	5%	1/8W	

Ref.No.	Part No.	Description
R63	1-249-315-11	(Canadian,E) ...CARBON MELF 22 5% 1/8W
R64	1-249-351-11	(AEP,UK,WG,IT) ...CARBON MELF 22K 5% 1/8W
R65	1-249-355-11	(AEP,UK,WG,IT) ...CARBON MELF 47K 5% 1/8W
R66	1-215-493-00	(AEP,UK,WG,IT) ...CARBON MELF 1M 5% 1/5W
R67	1-249-359-11	(AEP,UK,WG,IT) ...CARBON MELF 100K 5% 1/8W
R68	1-249-352-11	(AEP,UK,WG,IT) ...CARBON MELF 27K 5% 1/8W
R69	1-249-351-11	(AEP,UK,WG,IT) ...CARBON MELF 22K 5% 1/8W
R70	1-249-331-11	(AEP,UK,WG,IT) ...CARBON MELF 470 5% 1/8W
R71	1-249-339-11	(AEP,UK,WG,IT) ...CARBON MELF 2.2K 5% 1/8W
R72	1-249-351-11	(AEP,UK,WG,IT) ...CARBON MELF 22K 5% 1/8W
R73	1-249-343-11	(AEP,UK,WG,IT) ...CARBON MELF 4.7K 5% 1/8W
R74	1-249-347-11	(AEP,UK,WG,IT) ...CARBON MELF 10K 5% 1/8W
R75	1-249-343-11	(AEP,UK,WG,IT) ...CARBON MELF 4.7K 5% 1/8W
R81	1-249-335-11	CARBON MELF 1K 5% 1/8W
R82	1-249-335-11	CARBON MELF 1K 5% 1/8W
R83	1-249-335-11	CARBON MELF 1K 5% 1/8W
R84	1-249-335-11	CARBON MELF 1K 5% 1/8W
R85	1-249-347-11	CARBON MELF 10K 5% 1/8W
R86	1-249-335-11	CARBON MELF 1K 5% 1/8W
R87	1-249-347-11	CARBON MELF 10K 5% 1/8W
R88	1-249-343-11	CARBON MELF 4.7K 5% 1/8W
R89	1-249-335-11	CARBON MELF 1K 5% 1/8W
R90	1-249-347-11	CARBON MELF 10K 5% 1/8W
R91	1-249-335-11	CARBON MELF 1K 5% 1/8W
R92 ⚠	1-249-401-11	CARBON (SMALL) 47 5% 1/4W F
R101	1-249-341-11	CARBON MELF 3.3K 5% 1/8W
R102	1-249-332-11	CARBON MELF 560 5% 1/8W
R103	1-249-335-11	CARBON MELF 1K 5% 1/8W
R104	1-249-328-11	CARBON MELF 270 5% 1/8W
R105	1-249-343-11	CARBON MELF 4.7K 5% 1/8W
R106	1-249-339-11	CARBON MELF 2.2K 5% 1/8W
R107	1-249-343-11	CARBON MELF 4.7K 5% 1/8W
R108	1-249-323-11	CARBON MELF 100 5% 1/8W
R109	1-249-343-11	CARBON MELF 4.7K 5% 1/8W
R110 ⚠	1-249-405-11	CARBON (SMALL) 100 5% 1/4W F
R111	1-249-341-11	(AEP,UK,WG,IT) ...CARBON MELF 3.3K 5% 1/8W
R112	1-249-332-11	(AEP,UK,WG,IT) ...CARBON MELF 560 5% 1/8W
R113	1-249-335-11	(AEP,UK,WG,IT) ...CARBON MELF 1K 5% 1/8W
R114	1-249-328-11	(AEP,UK,WG,IT) ...CARBON MELF 270 5% 1/8W
R115	1-249-351-11	(AEP,UK,WG,IT) ...CARBON MELF 22K 5% 1/8W
R116	1-249-339-11	(AEP,UK,WG,IT) ...CARBON MELF 2.2K 5% 1/8W

Ref.No.	Part No.	Description
R117	1-249-343-11	(AEP,UK,WG,IT) CARBON MELF 4.7K 5% 1/8W
R118	1-249-323-11	(AEP,UK,WG,IT) CARBON MELF 100 5% 1/8W
R502	1-249-437-11	CARBON 47K 5% 1/4W
R503 ⚠	1-247-752-11	CARBON 1K 5% 1/2W F
R504	1-249-441-11	CARBON 100K 5% 1/4W
R506	1-249-393-11	CARBON 10 5% 1/4W
R551	1-202-725-00	(Canadian)...SOLID 100 5% 1/4W
R701	1-249-405-11	CARBON 100 5% 1/4W
R702	1-249-441-11	CARBON 100K 5% 1/4W
R703	1-249-441-11	CARBON 100K 5% 1/4W
R704	1-249-441-11	CARBON 100K 5% 1/4W
R705	1-249-441-11	CARBON 100K 5% 1/4W
R706	1-249-441-11	CARBON 100K 5% 1/4W
R707	1-249-423-11	CARBON 3.3K 5% 1/4W
R708	1-249-417-11	CARBON 1K 5% 1/4W
R709	1-249-411-11	CARBON 330 5% 1/4W
R710	1-249-411-11	CARBON 330 5% 1/4W
R711	1-249-429-11	CARBON 10K 5% 1/4W
R712	1-249-429-11	CARBON 10K 5% 1/4W
R713	1-249-429-11	CARBON 10K 5% 1/4W
R714	1-249-429-11	CARBON 10K 5% 1/4W
R715	1-249-429-11	CARBON 10K 5% 1/4W
R716	1-249-429-11	CARBON 10K 5% 1/4W
R717	1-249-429-11	CARBON 10K 5% 1/4W
R718	1-249-423-11	CARBON 3.3K 5% 1/4W
R719	1-249-423-11	CARBON 3.3K 5% 1/4W
R720	1-249-423-11	CARBON 3.3K 5% 1/4W
R721	1-249-423-11	CARBON 3 3K 5% 1/4W
R722	1-249-423-11	CARBON 3.3K 5% 1/4W
R723	1-249-423-11	CARBON 3.3K 5% 1/4W
R724	1-249-423-11	CARBON 3.3K 5% 1/4W
R725	1-249-429-11	CARBON 10K 5% 1/4W
R726	1-249-429-11	CARBON 10K 5% 1/4W
R727	1-249-405-11	CARBON 100 5% 1/4W
R728	1-249-429-11	(WG,IT)...CARBON 10K 5% 1/4W
RV21	1-238-013-11	(Canadian,E,AEP,UK) ...RES, ADJ, CARBON 2.2K
RV21	1-238-015-11	(WG,IT).....RES, ADJ, CARBON 4.7K
RV22	1-238-017-11	RES, ADJ, CARBON 22K
RV23	1-238-021-11	RES, ADJ, CARBON 220K
S701	1-554-303-21	SWITCH, KEY BOARD (1)
S702	1-554-303-21	SWITCH, KEY BOARD (2)
S703	1-554-303-21	SWITCH, KEY BOARD (3)
S704	1-554-303-21	SWITCH, KEY BOARD (4)
S705	1-554-303-21	SWITCH, KEY BOARD (5)
S706	1-554-303-21	SWITCH, KEY BOARD (6)
S707	1-554-303-21	SWITCH, KEY BOARD (7)
S708	1-554-303-21	SWITCH, KEY BOARD (8)
S709	1-554-303-21	SWITCH, KEY BOARD (9)
S710	1-554-303-21	SWITCH, KEY BOARD (0)
S711	1-554-303-21	SWITCH, KEY BOARD (AUTO TUNING)
S712	1-554-303-21	SWITCH, KEY BOARD (STEREO/MUTING)
S713	1-554-303-21	SWITCH, KEY BOARD (MEMORY SCAN)
S714	1-554-303-21	SWITCH, KEY BOARD (MEMORY)
S715	1-554-303-21	SWITCH, KEY BOARD (SHIFT)

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

MC-Service

Ref.No.	Part No.	Description
S716	1-554-303-21	SWITCH, KEY BOARD (BAND)
S717	1-571-327-21	SWITCH, ROTARY (TUNING)
S901	⚠1-554-920-21	SWITCH, PUSH (AC POWER)(1 KEY)
T21	1-404-807-11	TRANSFORMER, DISCRIMINATOR
T23	1-236-465-11	(WG,IT)...ENCAPSULATED COMPONENT
TB2	1-535-416-00	TERMINAL
TB3	1-535-416-00	TERMINAL
TM1	*1-536-708-00	(Canadian,E)...TERMINAL BOARD, PUSH 4P
TM1	*1-537-138-21	(AEP,UK).....TERMINAL BOARD (ANT)
TM1	*1-537-138-31	(WG,IT).....TERMINAL BOARD (ANT)
TP1	*1-560-060-00	PIN, CONNECTOR 2P (NULL)
VS1	⚠1-571-722-11	(E).....SWITCH, VOLTAGE SELECTION
WP501	*1-535-139-00	BASE POST 22MM (10MM PITCH) 2P
XT81	1-577-126-11	VIBRATOR, CRYSTAL

ACCESSORY & PACKING MATERIAL

1-501-369-11	(AEP,UK,IT)....ANTENNA
1-501-351-21	(Canadian,E)...ANTENNA, FEEDER
1-501-374-11	ANTENNA, LOOP
⚠1-526-565-12	(E)....AC PLUG ADAPTOR
1-558-233-11	CORD (WITH CONNECTOR)(SIRCS)4P
1-558-543-11	CORD, CONNECTION
3-701-630-00	BAG, POLYETHYLENE
3-750-238-11	(Canadian,UK,E,IT)...MANUAL, INSTRUCTION (ENGLILSH,FRENCH,SPANISH,ITALIAN)
3-750-238-41	(AEP,WG).....MANUAL, INSTRUCTION (GERMAN,DUTCH,SWEDISH,PORTUGUESE)
3-750-238-51	(AEP,IT//F)...MANUAL, INSTRUCTION (ENGLILSH,FRENCH,SPANISH,ITALIAN)
3-750-238-61	(AEP//F).....MANUAL, INSTRUCTION (GERMAN,DUTCH,SWEDISH,PORTUGUESE)
*3-704-343-01	SHEET (STANDARD), PROTECTION
4-915-426-01	CUSHION
*4-923-467-01	(AEP,IT//F)...CUSHION
*4-917-056-01	INDIVIDUAL CARTON
*4-923-466-01	(AEP,IT//F)...INDIVIDUAL CARTON

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note:** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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